SANYO

COLOUR TELEVISION

A1 CHASSIS SERIES

SERVICE REF. NO. CED3011PV-20

Q701	VOLT.
C	4.5V
B	0.2V
E	–

Q801	VOLT.
C	11V
B	3.5V
E	3V

Q802	VOLT.
C	–
B	7.2V
E	5.3V

Q803	VOLT.
C	–
B	3.6V
E	4.3V

Q821	VOLT.
C	5.5V
B	0V
E	–

Q741	VOLT.
C	11V
B	6.5V
E	5.8V

Q742	VOLT.
C	0.1V
B	1V
E	0.1V

Q711	VOLT.
C	4.9V
B	0V
E	0V

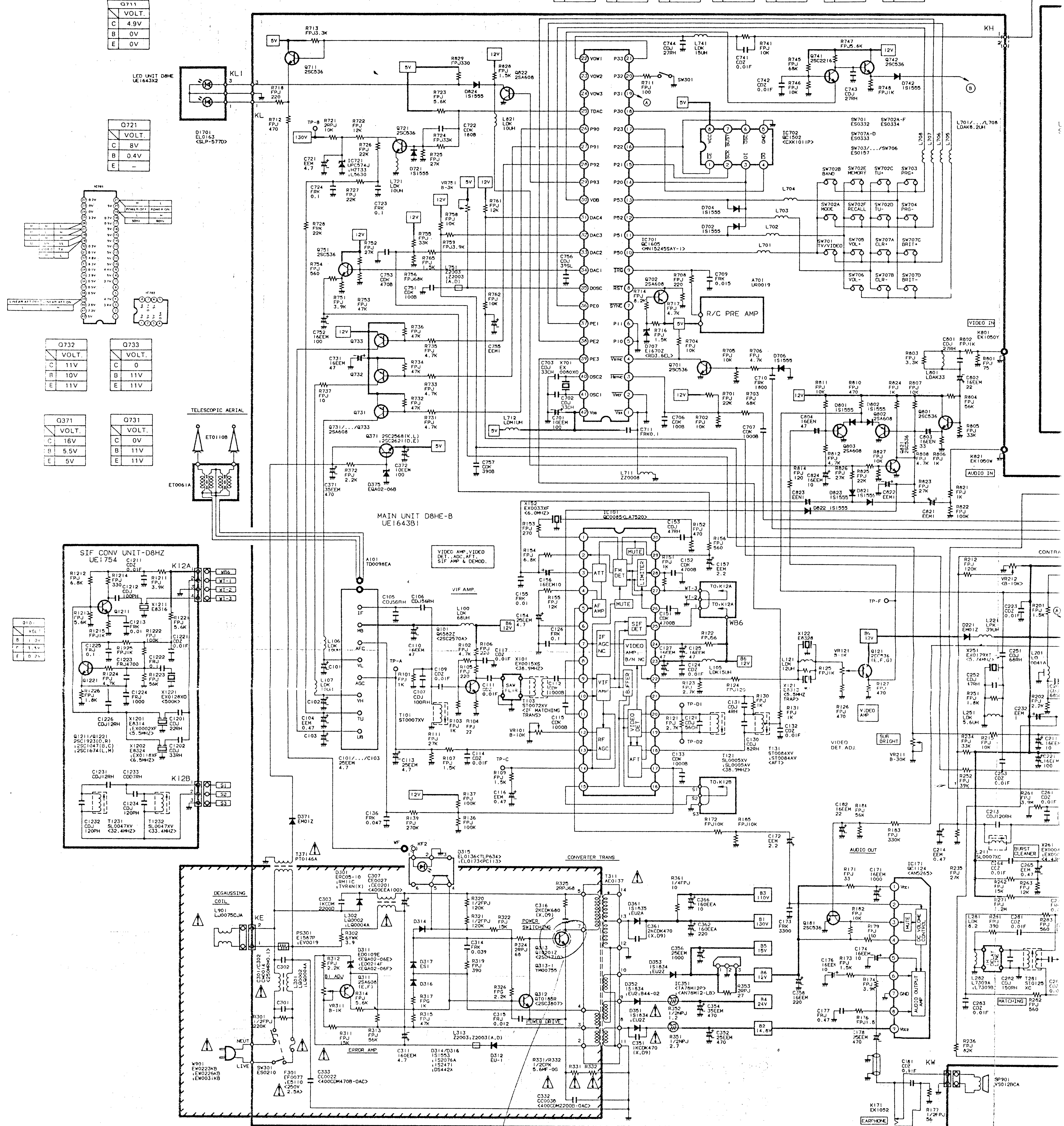
Q721	VOLT.
C	8V
B	0.4V
E	–

Q732	VOLT.
C	11V
B	10V
E	11V

Q733	VOLT.
C	0
B	11V
E	11V

Q371	VOLT.
C	16V
B	5.5V
E	5V

Q731	VOLT.
C	0V
B	11V
E	11V



Phlol
RC700
JR9139 ✓

moc P · nie wzbudza się

SERVICE PRECAUTION;
THE AREA ENCLOSED BY THIS LINE ( ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE. WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK

Q311	VOLT.
B	37.5V
C	0.1V
E	38.0V

Q312	VOLT.	WAVEFORM
B	0V	1.1VP-P
C	-0.15V	1.5VP-P
E	0V	------

Q313	VOLT.	WAVEFORM
B	-0.15V	1.5VP-P
C	280V	560VP-P
E	0V	------

Q181	VOLT.
C	19.5V
B	–0.6V
E	–

IC171

Pin	
1	11.5V
2	5V
3	0V
4	9.5V
5	7V
6	7.4V
7	–
8	7.5V
9	15V

IC101

Pin			Pin
1	4.6V	5.8V	30
2	6.1V	4.3V	29
3	2.8V	3.1V	28
4	4.2V	3.1V	27
5	4.8V	3.1V	26
6	0V	10.9V	25
7	4.1V	10.4V	24
8	4.4V	11.5V	23
9	4.4V	4.5V	22
10	4.4V	3.8V	21
11	4.4V	8.4V	20
12	2.1V	1.4V	19
13	5.6V	3.8V	18
14	4.1V	6.4V	17
15	3.8V	3.8V	16

Q121	VOLT	WAVEFO
B	1.9V	1.0VP-P HORIZ
C	11V	------
E	1.2V	1.0VP-P HORIZ

SANYO

COLOUR TELEVISION

A1 CHASSIS SERIES

SERVICE REF. NO. CED3011PV-20

PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF A RECEIVER. COMPONENTS INDICATED BY A MARK ⚠ IN THIS CIRCUIT DIAGRAM SHOW COMPONENTS WHOSE VALUE HAVE SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE PARTS LIST OF SERVICE MANUAL BE USED FOR COMPONENTS REPLACEMENT POINTED OUT BY THE MARK.

CIRCUIT DIAGRAM NOTES;

1. ALL RESISTANCE VALUES ARE IN OHMS, K=1,000, M=1,000,000.
2. ALL RESISTANCE RATED WATTAGES ARE 1/4W UNLESS OTHERWISE NOTED.
3. EXCEPTING ELECTROLYTIC CAPACITORS, ALL CAPACITANCE VALUES OF LESS THAN 1 ARE EXPRESSED IN UF, AND MORE THAN 1 ARE IN PF. ELECTROLYTOC CAPACITANCE VALUES ARE IN UF.
4. ALL CAPACITANCE RATED VOLTAGES ARE 50V UNLESS OTHERWISE NOTED.
5. ALL INDUCTANCE VALUES ARE IN UH.
6. VOLTAGE READINGS TAKEN WITH A "VTVM" ARE FROM POINT INDICATED TO CHASSIS GROUND. VOLTAGE READINGS TAKEN BY USING A COLOUR BAR SIGNAL ARE WITH ALL CONTROLS AT NORMAL AND AFC SWITCH IN "OFF" POSITION. SOME VOLTAGES MAY VARY WITH SIGNAL STRENGTH.
7. WAVEFORMS WERE TAKEN WITH COLOUR BAR SIGNAL AND CONTROLS ADJUSTED FOR NORMAL PICTURE. WAVEFORMS WERE TAKEN BY USING A WIDE BAND OSCILLOSCOPE AND A LOW CAPACITY PROBE.
8. VOLTAGE AND WAVEFORM VALUES OF TRANSISTORS IN THE AREA ENCLOSED BY LINE (— - —) ARE MEASURED TO BASE THE ELECTRIC POTENTIAL AT PIN 3 OF T311.
9. THIS CIRCUIT DIAGRAM COVERS A BASIC OR REPRESENTATIVE CHASSIS ONLY. THERE MAY BE SOME COMPONENTS OR PARTIAL CIRCUIT DIFFERENCES BETWEEN THE ACTUAL CHASSIS AND THE CIRCUIT DIAGRAM.
10. EXPRESSION OF CAPACITANCE AND RESISTANCE IN CIRCUIT DIAGRAM.

- CAPACITOR (EXAMPLE)

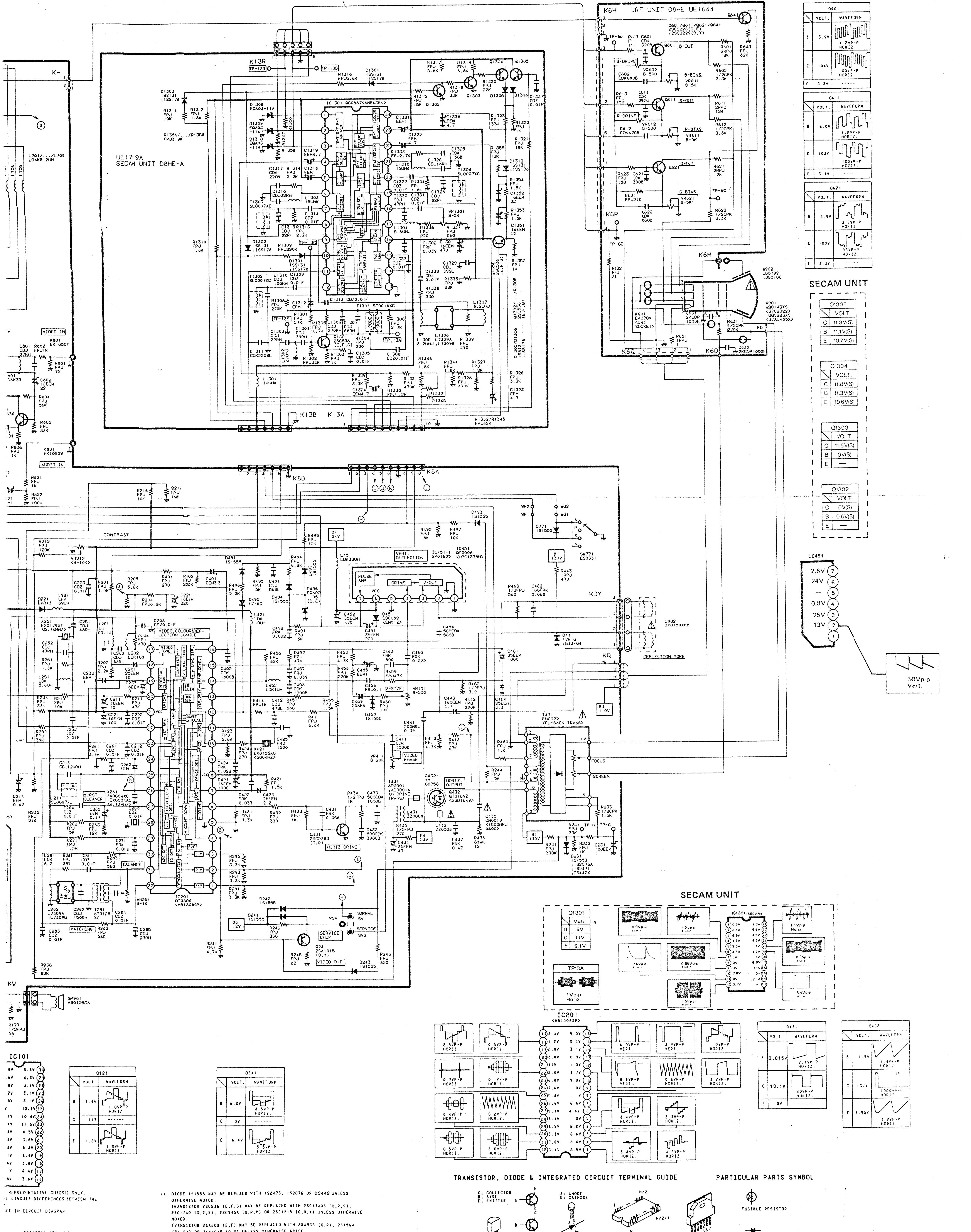
1000 C D M 2200 D
- D — CHARACTERISTIC
- 2200 — CAPACITANCE VALUE (2200PF)
- M — ALLOWABLE ERROR (+-20%)
- D — TERMINAL CONSTRUCTION
- C — TYPE (CERAMIC)
- 1000 — RATED VOLTAGE (1000V)

- RESISTOR (EXAMPLE)

1/2 N P J 1.2
- 1.2 — RESISTANCE VALUE (1.2 OH
- J — ALLOWABLE ERROR (+-5%)
- P — TERMINAL CONSTRUCTION
- N — TYPE (METALIZED CARBON)
- 1/2 — RATED WATTAGE (1/2W)

Part No. 3P08103 (D8HZ)

QC0827
(AN5635N)


K6H
CRT UNIT D8HE UE1644
Q601/Q611/Q621/Q641
2SC2228(D,E)
2SC2229(O,Y)
B-OUT
G-OUT
R-OUT
B-DRIVE
R-DRIVE
B-BIAS
R-BIAS
G-BIAS
K6M
K6Q
K6D
K6P
K601
EX0708
<CRT SOCKET>
W902
JG0099
JG0106
Q901
UE1719A
SECAM UNIT D8HE-A
K13R
K13B
K13A
IC1301 QC0887<AN5635N>
TP-13R
TP-13B
TP-13E
TP-13D
TP-13A
T1301 ST0016XC
VIDEO IN
AUDIO IN
K8B
K8A
KH
KW
SP901
VS012BCA
CONTRAST
VIDEO, COLOUR, DEF-LECTION JUNGLE
IC201
QC0800
<M51308SP>
BURST CLEANER
MATCHING
BALANCE
VERT. DEFLECTION
IC451-1
2P01605
IC451
QC0006
<UPC1378H>
PULSE AMP
DRIVE
V-OUT
V-SIZE
VIDEO PHASE
HORIZ. DRIVE
HORIZ. OUTPUT
Q432-1
Q432
2SD1649
T431
<H-DRIVE TRANS>
T471
FM0022
<FLYBACK TRANS>
HV
FOCUS
SCREEN
KDY
KQ
L902
DY0150XFB
DEFLECTION YOKE
SW771
ES0331
SERVICE CHIP
VIDEO OUT
NORMAL
SERVICE
SV1
SV2
Q241
2SA1015
(O,Y)
B1
130V
B3
110V
B4
24V
B6
12V
IC451
2.6V 7
24V 6
— 5
0.8V 4
25V 3
13V 2
1
50Vp-p
Vert.

Q601

	VOLT.	WAVEFORM
B	3.9V	4.2VP-P HORIZ.
C	104V	100VP-P HORIZ.
E	3.3V	-----

Q611

	VOLT.	WAVEFORM
B	4.0V	4.2VP-P HORIZ.
C	103V	100VP-P HORIZ.
E	3.4V	-----

Q621

	VOLT.	WAVEFORM
B	3.9V	3.7VP-P HORIZ.
C	100V	95VP-P HORIZ.
E	3.3V	-----

SECAM UNIT

Q1305

	VOLT.
C	11.8V(S)
B	11.1V(S)
E	10.7V(S)

Q1304

	VOLT.
C	11.8V(S)
B	11.3V(S)
E	10.6V(S)

Q1303

	VOLT.
C	11.5V(S)
B	0V(S)
E	—

Q1302

	VOLT.
C	0V(S)
B	0.6V(S)
E	—

SECAM UNIT

Q1301

	Volt.
B	6V
C	11V
E	5.1V

TP13A
1Vp-p
Horiz.

IC1301 (SECAM)

Pin	Volt	Volt	Pin
1	6.5V	4.7V	24
2	6.5V	9.5V	23
3	6.6V	4.5V	22
4	4.5V	4.5V	21
5	9.5V	3V	20
6	4.5V	1.2V	19
7	3V	3V	18
8	0V	6.9V	17
9	3V	11V	16
10	2.8V	3V	15
11	0V	2.1V	14
12	3.1V	–	13

0.9Vp-p Horiz.
1.2Vp-p Horiz.
2.6Vp-p Horiz.
0.65Vp-p Horiz.
1.5Vp-p Horiz.
1.1Vp-p Horiz.
0.85p-p Horiz.
6.4Vp-p Horiz.

IC201
<M51308SP>

Pin	Volt	Volt	Pin
17	3.4V	9.0V	16
18	1.2V	0.5V	15
19	2.0V	3.1V	14
20	8.0V	0.9V	13
21	11V	1.0V	12
22	2.0V	4.7V	11
23	6.0V	9.0V	10
24	7.6V	0V	9
25	5.8V	11V	8
26	7.6V	6.6V	7
27	9.3V	4.8V	6
28	8.4V	0V	5
29	8.5V	6.2V	4
30	3.3V	6.6V	3
31	7.0V	6.6V	2
32	3.4V	6.5V	1

2.5VP-P HORIZ.
0.5VP-P HORIZ.
0.7VP-P HORIZ.
0.1VP-P HORIZ.
0.4VP-P HORIZ.
0.2VP-P HORIZ.
0.5VP-P HORIZ.
2.0VP-P HORIZ.
6.0VP-P VERT.
3.2VP-P VERT.
1.0VP-P HORIZ.
0.8VP-P VERT.
0.6VP-P HORIZ.
3.2VP-P HORIZ.
8.4VP-P HORIZ.
2.3VP-P HORIZ.
3.8VP-P HORIZ.
4.2VP-P HORIZ.

Q431

	VOLT.	WAVEFORM
B	0.015V	2.1VP-P HORIZ.
C	18.1V	40VP-P HORIZ.
E	0V	------

Q432

	VOLT.	WAVEFORM
B	1.9V	1.4VP-P HORIZ.
C	137V	1000VP-P HORIZ.
E	1.95V	1.2VP-P HORIZ.

IC101

		Pin
.8V	5.8V	30
.6V	4.3V	29
8V	3.1V	28
.2V	3.1V	27
6V	3.1V	26
V	10.9V	25
1V	10.4V	24
4V	11.5V	23
4V	4.5V	22
4V	3.8V	21
4V	8.4V	20
1V	8.4V	19
6V	3.8V	18
1V	6.4V	17
6V	3.6V	16

Q121

	VOLT	WAVEFORM
B	1.9V	1.0VP-P HORIZ.
C	11V	------
E	1.2V	1.0VP-P HORIZ.

Q241

	VOLT.	WAVEFORM
B	6.2V	8.5VP-P HORIZ.
C	0V	------
E	6.4V	5.5VP-P HORIZ.

REPRESENTATIVE CHASSIS ONLY.
L CIRCUIT DIFFERENCES BETWEEN THE

ICE IN CIRCUIT DIAGRAM.

11. DIODE 1S1555 MAY BE REPLAED WITH 1S2473, 1S2076 OR DS442 UNLESS OTHERWISE NOTED.
TRANSISTOR 2SC536 (E,F,G) MAY BE REPLACED WITH 2SC1740S (Q,R,S), 2SC1740 (Q,R,S), 2SC945A (Q,R,P) OR 2SC1815 (G,O,Y) UNLESS OTHERWISE NOTED.
TRANSISTOR 2SA608 (E,F) MAY BE REPLACED WITH 2SA933 (Q,R), 2SA564 (QA,RA) OR 2SA1015 (O,Y) UNLESS OTHERWISE NOTED.

* RESISTOR (EXAMPLE)
1/2 N P J 1.2
- RESISTANCE VALUE (1.2 OHM)
- ALLOWABLE ERROR (+-5%)
- TERMINAL CONSTRUCTION
- TYPE (METALIZED CARBON)
- RATED WATTAGE (1/2W)

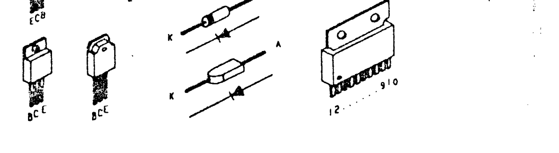
OPF)
%)

*TYPE (CAPACITOR)
C ... CERAMIC
E ... ELECTROLYTIC
F ... MYLAR FILM
N ... POLYPROPYLENE

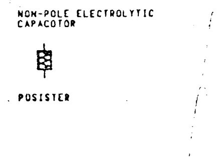
*TYPE (RESISTOR)
F ... CARBON
N ... METALIZED CARBON
R ... OXIDE METALIZED
Y ... WIRE WOUND
C ... SOLID

*ALLOWABLE ERROR
G ... +-2%
J ... +-5%
K ... +-10%
M ... +-20%
Z ... +80% -20%
P ... +100% -0%
*(N)... NON-POLALITY

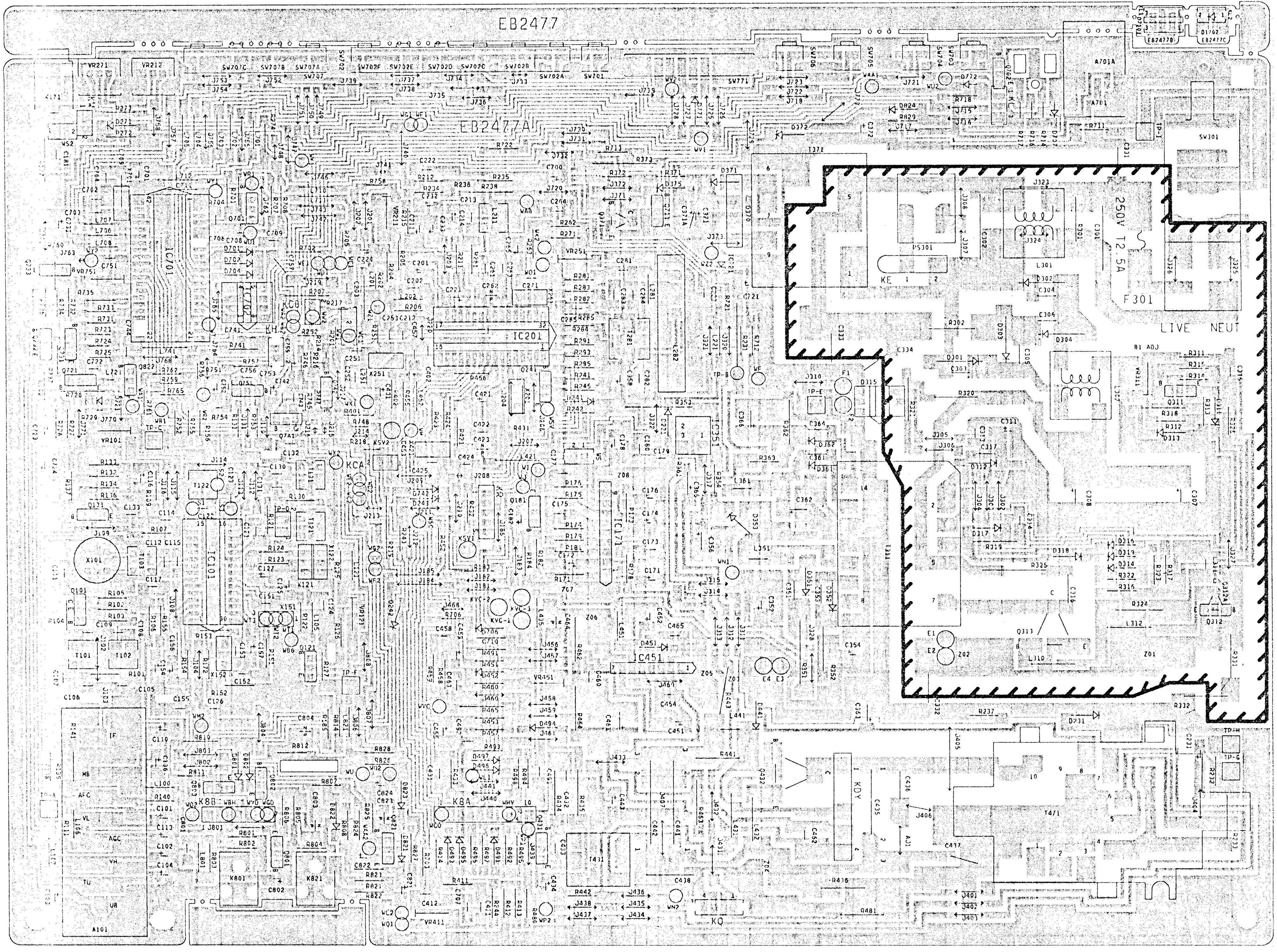
TRANSISTOR, DIODE & INTEGRATED CIRCUIT TERMINAL GUIDE


C; COLLECTOR
B; BASE
E; EMITTER
A; ANODE
K; CATHODE
E
B
C
ECB
BCE
A
K
N/2
N/2+1
1
N
1 2 ...... 9 10
1 2 3 4 5 6 7

PARTICULAR PARTS SYMBOL


FUSIBLE RESISTOR
NON-POLE ELECTROLYTIC CAPACOTOR
POSISTER

LED & MAIN UNIT D8HE-B

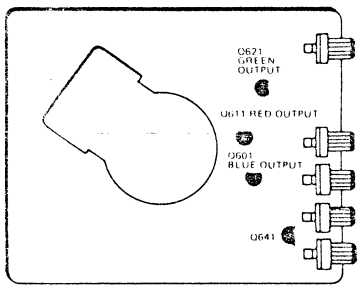

EB2477
EB2477A
IC701
IC201
IC101
IC171
IC451
IC351
T471
KDY
SW301
F301
250V T2.5A
LIVE NEUT
B1 ADJ
X101
A101
IF
AFC
AGC
TU
UB

EB2477 D8HA

TR1
TR2
TR3
TR4
TR40
TR40
D1 ~
D5, 8
D6
D7, 1
D12,
D14 ·
D20
D201
D401

COMPONENT LOCATION

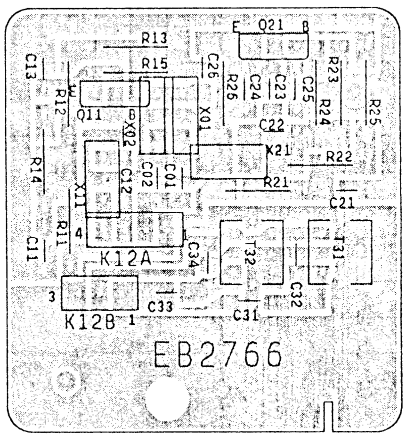
CRT UNIT D8HE


Q621 GREEN OUTPUT
Q611 RED OUTPUT
Q601 BLUE OUTPUT
Q641
VR602 B DRIVE
VR612 R DRIVE
VR601 B BIAS
VR611 R BIAS
VR621 G BIAS

CED 30M-PV2

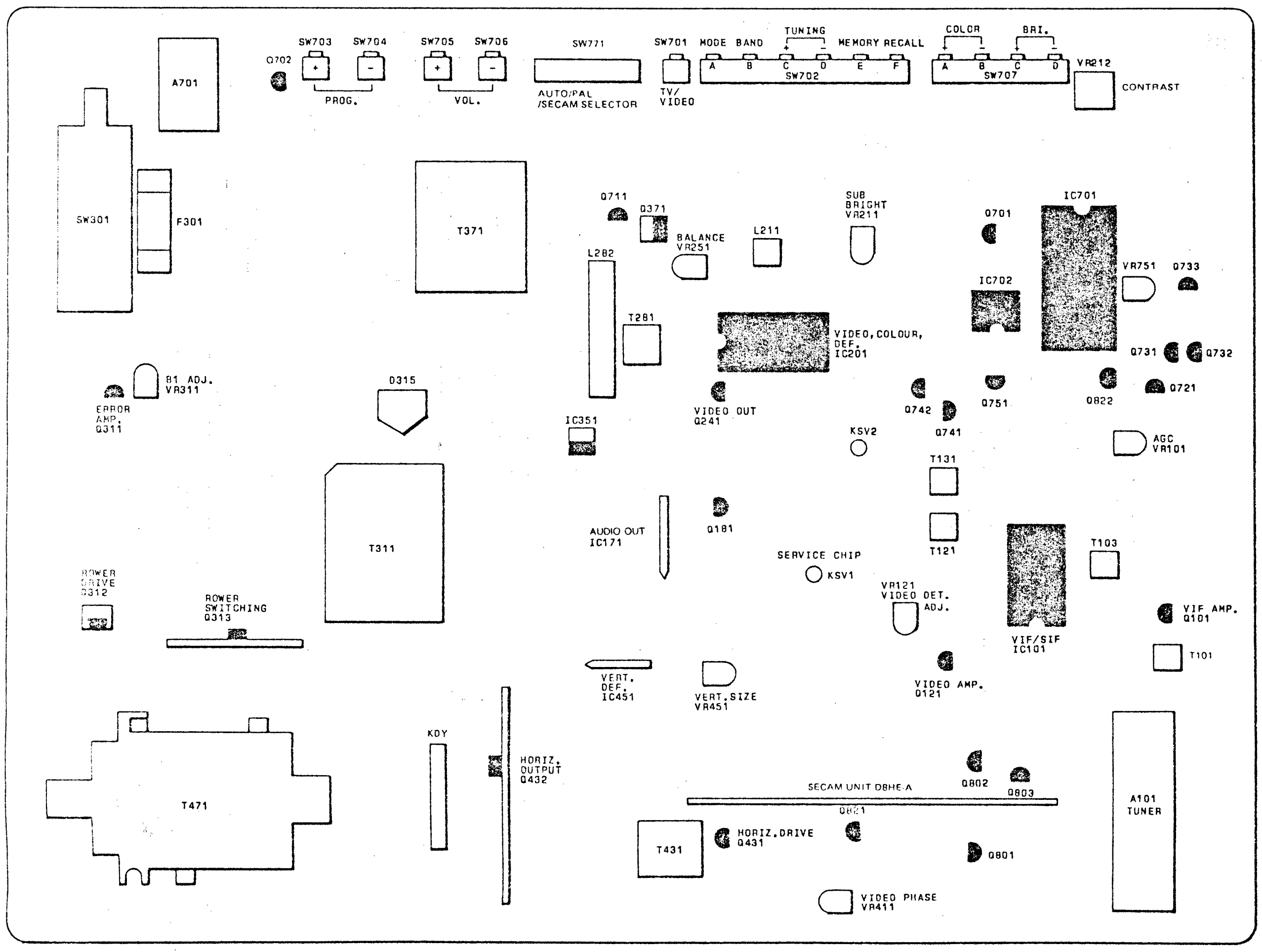
SANYO 30M

SIF CONVERTER UNIT D8HZ

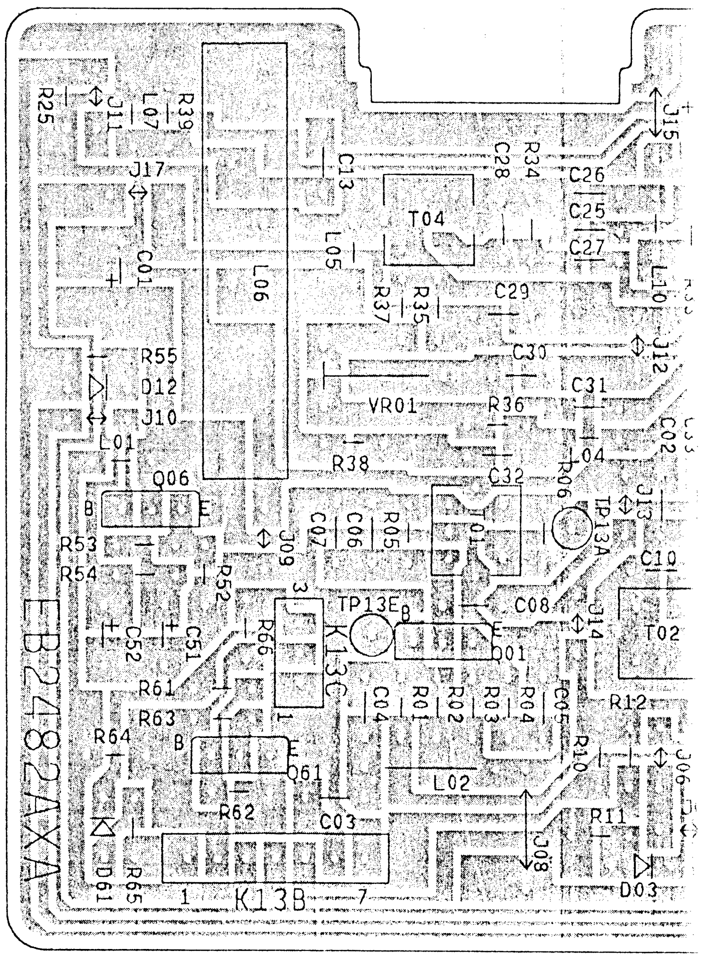

Q21
Q11
X01
X02
X11
K21
K12A
K12B
T31
T32
EB2766

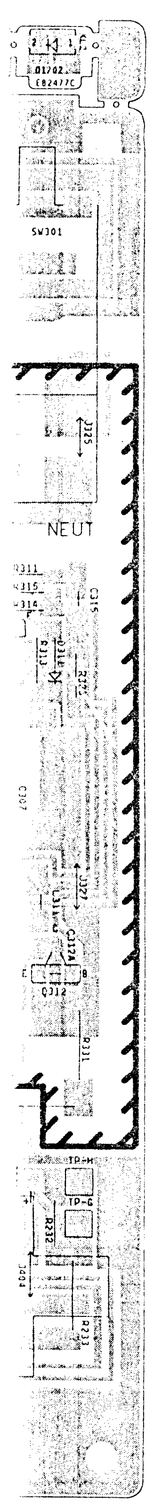
EB2766 D8HZ

MAIN UNIT D8HE-B

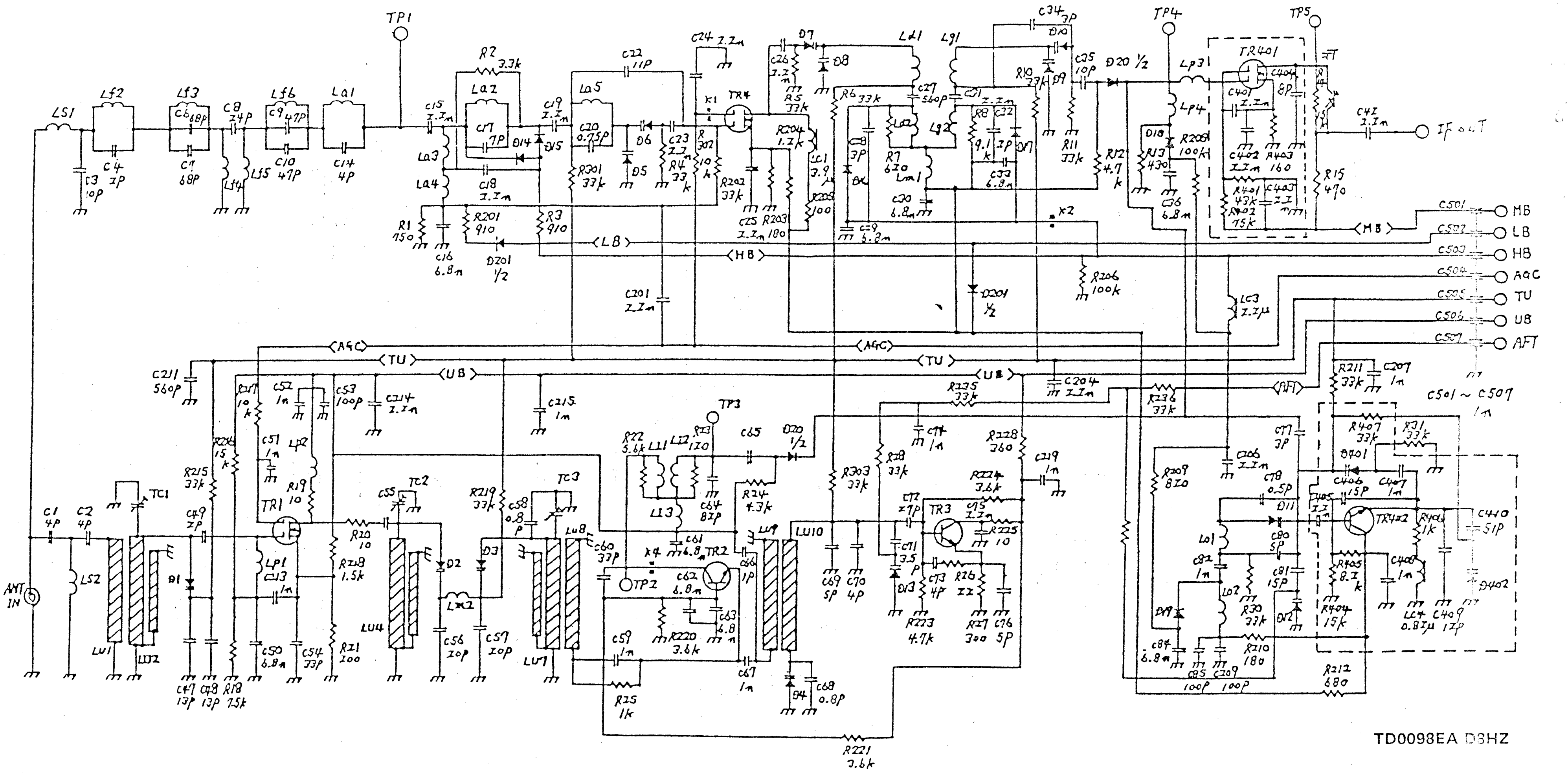

A701
SW703
SW704
PROG.
SW705
SW706
VOL.
SW771
AUTO/PAL /SECAM SELECTOR
SW701
TV/ VIDEO
MODE
BAND
TUNING
MEMORY RECALL
SW702
COLOR
BRI.
SW707
VR212
CONTRAST
SW301
F301
T371
Q711
Q371
BALANCE VR251
L211
SUB BRIGHT VR211
Q701
IC701
VR751
Q733
IC702
L282
T281
VIDEO, COLOUR, DEF. IC201
Q731
Q732
Q721
B1 ADJ. VR311
ERROR AMP. Q311
D315
VIDEO OUT Q241
Q742
Q751
Q822
AGC VR101
IC351
Q741
KSV2
T131
T311
AUDIO OUT IC171
Q181
T121
T103
SERVICE CHIP KSV1
POWER DRIVE Q312
POWER SWITCHING Q313
VR121 VIDEO DET. ADJ.
VIF/SIF IC101
VIF AMP. Q101
T101
VERT. DEF. IC451
VERT. SIZE VR451
VIDEO AMP. Q121
KDY
HORIZ. OUTPUT Q432
T471
SECAM UNIT D8HE A
Q802
Q803
A101 TUNER
T431
HORIZ. DRIVE Q431
Q801
VIDEO PHASE VR411

SECAM UNIT D8HE-A


L06
T04
VR01
K13C
K13B
TP13E
TP13A
EB2482AXA



177 D8HA ©

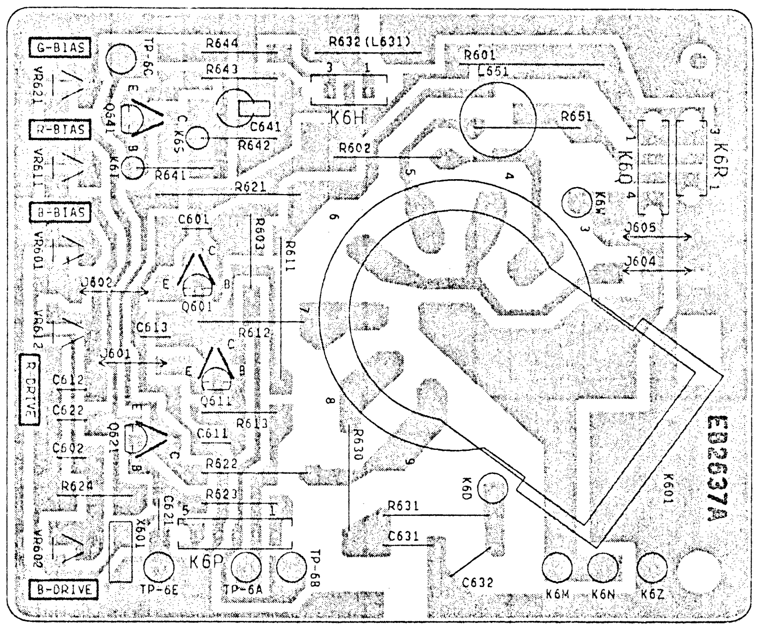

TP1
TP2
TP3
TP4
TP5
ANT IN
IF OUT
TR1
TR2
TR3
TR4
TR401
TR402
MB
LB
HB
AGC
TU
UB
AFT
C501 ~ C507 1n

TD0098EA D8HZ

TR1 : 3SK138, 3SK135, 3SK127, 3SK146, 3SK143
TR2 : 2SC3547, 2SC3707, 2SC2734, 2SC2736, 2SC3704
TR3 : 2SC3547, 2SC3127, 2SC2734, 2SC2736, 2SC3704
TR4 : 3SK137, 3SK153, 3SK160, 3SK139, 3SK132
TR401 : 3SK137, 3SK151, 3SK169
TR402 : 2SC3547, 2SC3707, 2SC2734, 2SC2736, 2SC3704
D1 ~ 4 : 1SV193, 1SV153, 1T32, MA321
D5, 8, 9, 11: 1T33, 1SV161
D6 : 1T33, 1SV161
D7, 10 : 1T32, 1SV153, MA321
D12, 13 : HVK89, 1SV181
D14 ~ 19 : HSK277, RLS135, DLP238, MA860, HSK110
D20 : DAN235K, HSM2693, 1SS268
D201 : DAP202K, DCA015, 1SS179, 1SS180
D401, 402 : 1T33, 1SV161

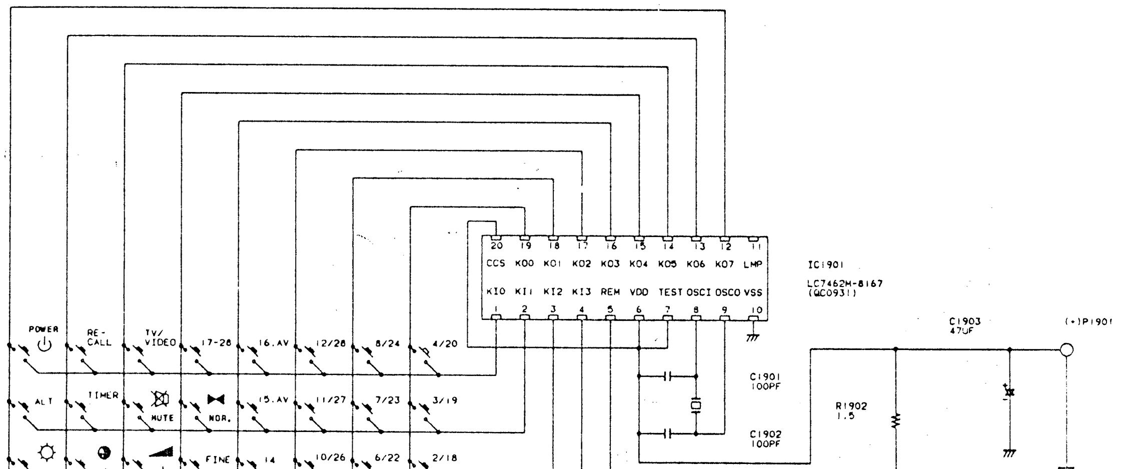
	UHF	VHI	VLO
MB	12V	12V	12V
UB	12V	OPEN	OPEN
HB	OPEN	12V	OPEN
LB	OPEN	OPEN	12V
AGC	7V		
AFT	6.5V		
TU	0.5 ~ 28V		

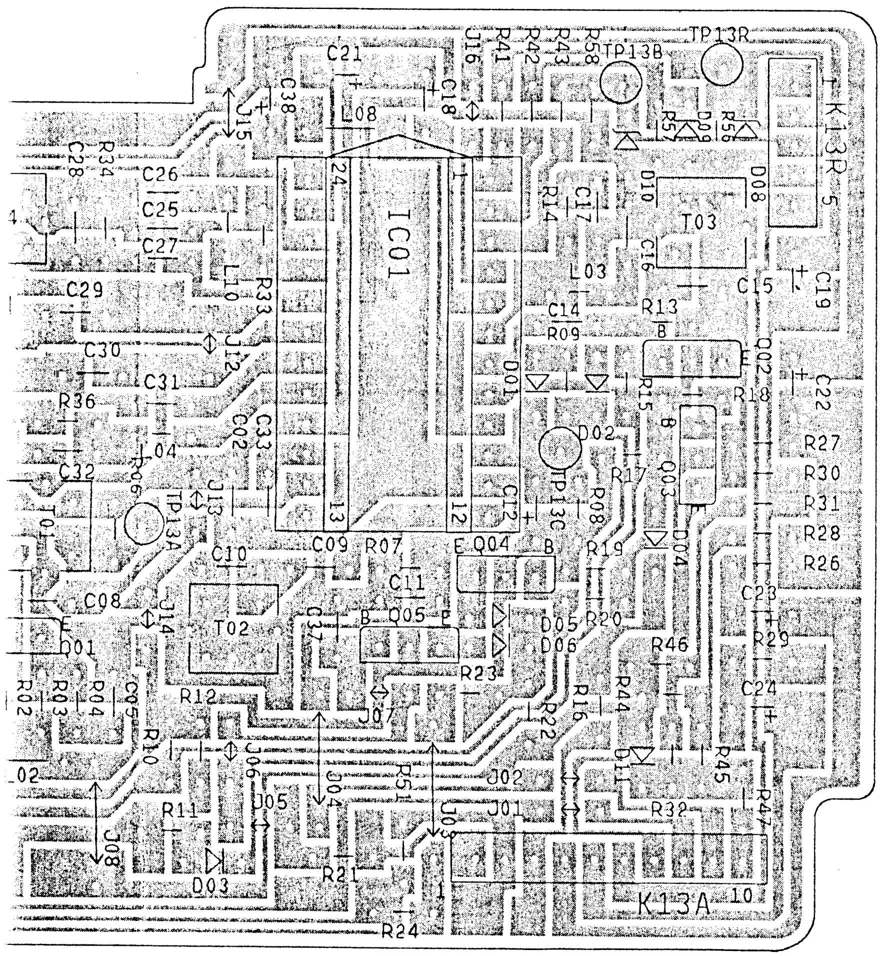
CRT UNIT D8HE (COMPONENT SIDE)


G-BIAS
R-BIAS
B-BIAS
G-DRIVE
B-DRIVE
K6H
K6P
K6M
K6N
K6Z
EB2637A

EB2637 Ⓐ D8HE

REMOTE CONTROL TRANSMITTER JXGA RC700


IC1901
LC7462M-8167
X1901
CSB455E
KBR455BTL
(455KHZ)
C1901 100PF
C1902 100PF
C1903 47UF
R1901 100
R1902 1.5
Q1901 2SC2673
IED1901
1.5Vx2
POWER
RE-CALL
TV/VIDEO
TIMER
MUTE
NOR.
ALT
BRI.
COL.
VOL.
FINE
PRO.


IC01
TP13B
TP13R
TP13C
TP13A
K13R
K13A
T02
T03

EB2482AXA D8KE Ⓐ